5/8/2009 3:41:51 PM 5/8/2009 4:33:12 PM

```
[File 2] INSPEC 1898-2006/Feb W3
[File 155] MEDLINE(R) 1951-2006/Feb 27
[File 5] Biosis Previews(R) 1969-2006/Feb W3
[File 6] NTIS 1964-2006/Feb W1 DSSSSSSS
[File 8] Ei Compendex(R) 1970-2006/Feb W3
[File 73] EMBASE 1974-2006/Feb 27
[File 95] TEME-Technology & Management 1989-2006/Feb W4
[File 35] Dissertation Abs Online 1861-2006/Feb
[File 144] Pascal 1973-2006/Feb W1
[File 99] Wilson Appl. Sci & Tech Abs 1983-2006/Jan
[File 34] SciSearch(R) Cited Ref Sci 1990-2006/Feb W3
[File 434] SciSearch(R) Cited Ref Sci 1974-1989/Dec
[File 65] Inside Conferences 1993-2006/Feb W4
[File 162] Global Health 1983-2006/Jan
[File 164] Allied & Complementary Medicine 1984-2006/Feb
[File 357] Derwent Biotech Res. 1982-2006/Feb W4
[File 23] CSA Technology Research Database 1963-2006/Feb
[File 60] ANTE: Abstracts in New Tech & Engineer 1966-2006/Feb
[File 256] TecInfoSource 82-2006/Feb (c) 2006 Info.Sources Inc
[File 987] TULSA (Petroleum Abs) 1965-2006/Feb W2
[File 105] AESIS 1851-2001/Jul
[File 103] Energy SciTec 1974-2006/Feb B2
[File 58] GeoArchive 1974-2005/Jun
[File 292] GEOBASE(TM) 1980-2006/Feb W4
[File 89] GeoRef 1785-2006/Feb B2
[File 239] Mathsci 1940-2006/Apr
```

#### Set Items Description

S1 3306448 S MAGNET???(2N)RESONA???? OR MRI OR MAGNET???()RESONANCE()IMAG???? OR MR(2N)IMAG???? OR (MAGNET??? OR PARALLEL)(2N)IMAG???? OR NMR OR NUCLEAR()MAGNET??? OR FTNMR OR FTMRI OR MAGNETORESONA???? OR PMR OR PROTON()MAGNETIC()RESONA???? OR PARAMAGNET???(2N)RESONA???? OR MAGNET!??(2N)RELAX????? OR FERROMAGNET???(2N)RESONA???? OR MAGNET???(3N)SPECTRO???????? OR MRS OR MRSI OR MRA OR MAGNET???()RESONANCE()ANGIOGRAPH???? OR CSI OR CHEMICAL()SHIFT()IMAG???? OR EPR OR ELECTRON()PARAMAGNETIC()RESONANCE OR FMRI OR FUNCTION???(2N)IMAG??? OR ESR OR ELECTRON()SPIN()RESONA???? OR SPIN(2N)RESONA???? OR NOR NUCLEAR(2N)RESONANCE

- S2 2568717 S (GENERAT???? OR PROCESS???? OR PRODUC???? OR ACQUI??????? OR
  RETRIEV???? OR RECOVER???? OR CAPTUR???? OR OBTAIN???? OR DELIVER??? OR PROVI???? OR
  DISPENS???? OR APPLY???? OR APPLI???? OR COLLECT??? OR MEASUR????? OR TEST???? OR
  DETERMIN????? OR ANALY????? OR DETECT???? OR SENS???? OR EVALUAT???? OR INVESTIGAT???? OR
  IDENTIF?????????? OR CALCULAT???? OR COMPUT???) (3N) (MFC OR M()F()C OR
  MAGNETIC()FIELD()CORRELAT???? OR IMAG???)
- S3 10214604 S (PLURAL???? OR MANY OR MORE OR SEVERAL???? OR MULTI???? OR DIFFER???? OR NUMBER??? OR NUMBER??? OR NUMBEROUS OR VARI?????? OR VARY???? OR SET OR SETS OR ARRAY??? OR CLUSTER???? OR NETWORK???? OR TWO OR COUPLE OR PAIR??? OR SECOND????) (3N) (ASYMMETRIC???? OR SPIN??? OR ECHO???? OR SEQUENC???? OR TRAIN??? OR SERIES OR PULS???? OR CHAIN??? OR SAMPL??? OR SUBSTRAT???? OR PATTERN???? OR SUBSTRACE??? OR OBJECT??? OR SPECIE??? OR PATTERN???? OR REGION??? OR AREA??? OR PORTION???) OR ADSE OR ASYMMETRIC???() DUAL() SPIN() ECHO() SEQUENCE OR ECHO() PLANAR() IMAG??? OR EPI() ADSE
- S4 1249205 S (RESULT???? OR FINAL OR CONCLUD??? OR NET OR REFOCUS???? OR ROTAT??????) (3N) (DATA OR INFO OR INFORMATION OR IMAG??? OR SIGNAL??? OR PULS???)
- S5 3671700 S PROTON()GYROMAGNETIC()RATIO OR SIGNAL()INTENSITY OR T1 OR T2 OR T2 OR SN OR SN OR GAMMA

```
S CC=(A3240 OR A3325 OR A7600 OR A0758 OR A8760I OR B7510N)
S6
        48832
                S S1 AND S2 AND S3 AND S4 AND S5
S7
         2934
         103
                S S7 AND S6
S8
S9
         6767
                S S1(3N)S2(3N)S3
S10
          821
                S S9 AND S4
                S S10 AND S5
S11
          273
                S S11 AND S6
S12
          1.3
               RD (unique items)
          1.2
S13
S14
          357
                S S1(3N)S2(3N)S3(3N)S4
S15
         112 S S14 AND S5
               S S15 AND S6
S16
```

## 5/8/2009 3:41:51 PM 5/8/2009 4:33:12 PM

S17	4	RD (unique items)
S18	10299	S S1(3N)S2(3N)S5
S19	2586	S S18 AND S3
S20	449	S S19 AND S4
S21	449	S S20 AND S5
S22	309	S S21 NOT PY>2003
S23	58	S S8 NOT PY>2003
S24	119	S S2 (3N) S3 (3N) S4 (3N) S5
S25	106	S S24 AND S1
S26	5	S S25 AND S6
\$27	5	RD (unique items)
S28	3	S S27 NOT S17
S29	9	S S13 NOT (S17 OR S27)

5/8/2009 4:56:48 PM 5/8/2009 5:38:43 PM

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[File 344] Chinese Patents Abs Jan 1985-2006/Jan [File 347] JAPIO Dec 1976-2008/Oct(Updated 090220) [File 350] Derwent WPIX 1963-2008/UD=200913 [File 371] French Patents 1961-2002/BOPI 200209
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Set Items Description

S1 95026 S MAGNET???(2N)RESONA???? OR MRI OR MAGNET???()RESONANCE()IMAG???? OR

MR(2N)IMAG???? OR (MAGNET??? OR PARALLEL)(2N)IMAG???? OR NMR OR NUCLEAR()MAGNET??? OR

FTNMR OR FTMRI OR MAGNETORESONA???? OR PMR OR PROTON()MAGNETIC()RESONA???? OR

PARAMAGNET???(2N)RESONA???? OR MAGNETI???(2N)RELAX????? OR FERROMAGNET???(2N)RESONA????

OR MAGNET???(3N)SPECTRO???????? OR MRS OR MRSI OR MRA OR

MAGNET???()RESONANCE()ANGIOGRAPH???? OR CSI OR CHEMICAL()SHIFT()IMAG???? OR EPR OR

ELECTRON()SPIN()RESONA??? OR SPIN(2N)RESONA???? OR NOR OR NUCLEAR(2N)RESONANCE

- S2 945278 S (GENERAT???? OR PROCESS???? OR PRODUC???? OR ACQUI??????? OR
  RETRIEV???? OR RECOVER???? OR CAPTUR???? OR OBTAIN???? OR DELIVER??? OR PROVI???? OR
  DISPENS???? OR APPLY???? OR APPLI???? OR COLLECT??? OR MEASUR????? OR TEST???? OR
  DETERMIN????? OR ANALY????? OR DETECT???? OR SENS???? OR EVALUAT???? OR INVESTIGAT???? OR
  IDENTIF????????????? OR CALCULAT???? OR COMPUT???) (3N) (MFC OR M()F()C OR
  MAGNETIC()FIELD()CORRELAT???? OR IMAG???)
- S3 2054395 S (PLURAL???? OR MANY OR MORE OR SEVERAL???? OR MULTI???? OR DIFFER???? OR NUMBER??? OR NUMBER??? OR NUMBER??? OR VARI?????? OR VARY???? OR SET OR SETS OR ARRAY??? OR CLUSTER???? OR NETWORK???? OR TWO OR COUPLE OR PAIR??? OR SECOND????) (3N) (ASYMMETRIC???? OR SPIN??? OR ECHO???? OR SQUENC???? OR TRAIN??? OR SERIES OR PULS???? OR CHAIN??? OR SAMPL??? OR SUBSTRAT???? OR PATTERN???? OR SUBSTRANCE??? OR OBJECT??? OR SPECIE??? OR PATTERN???? OR REGION??? OR REGION??? OR AREA??? OR PORTION???) OR ADSE OR ASYMMETRIC???() DUAL() SPIN() ECHO() SEQUENCE OR ECHO() PLANAR() IMAG??? OR EPI() ADSE
- S4 306251 S (RESULT???? OR FINAL OR CONCLUD??? OR NET OR REFOCUS???? OR ROTAT??????) (3N) (DATA OR INFO OR INFORMATION OR IMAG??? OR SIGNAL??? OR PULS???)
- S5 303883 S PROTON()GYROMAGNETIC()RATIO OR SIGNAL()INTENSITY OR T1 OR T1 OR T2 OR T2 OR SN OR SN OR GAMMA

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S IC= (G01N-024/00)
86
         465
S7
       12900
               S MC=(S01-E02A2 OR S03-E07A OR S03-E14H6 OR S05-C03)
         126
               S S1 AND S2 AND S3 AND S4 AND S5
S8
          1 S S8 AND S6
              s sa and s7
S10
          50
S11
        1449
              S S1(3N)S2(3N)S3
         298 S S11 AND S4
S12
S13
          34
              S S12 AND S5
S14
           0
              S S13 AND S6
              S S13 AND S7
S15
          22
S16
         910 S (MFC OR M()F()C OR MAGNETIC()FIELD()CORRELATION)
          0
              S S16 AND S6
S17
S18
           2
               S S16 AND S7
         161 S S2 (3N) S3 (3N) S5
S19
              S S19 AND S1
S20
          53
S21
          15
              S S20 AND S4
          1 S S20 AND S6
S22
         16 S S20 AND S7
S23
              S S1(3N)S16
S S1 AND S16
S24
          1
S25
          12
S26
          34 S S1(3N)S2(3N)S3(3N)S5
          9
              S S26 AND S4
S27
               S S26 AND S6
S28
           0
          1.3
              S S26 AND S7
S29
S30
         108 S S1(3N)S2(3N)S3(3N)S4
S31
          14
               S S30 AND S5
               S S30 AND S6
S32
           0
          5 S1(3N)S2(3N)S3(3N)S4(3N)S5
28 S S16 AND 95
S33
534
S35
          3 S S35 AND S1
S36
S37
          3 S S35 AND S2
```

### 5/8/2009 4:56:48 PM 5/8/2009 5:38:43 PM

```
S38
           7
               S S35 AND $3
S39
               S S35 AND S4
               S S18 NOT S9
S40
S41
               S S22 NOT (S9 OR S18)
S42
               S S24 NOT (S9 OR S18 OR S22)
           0
S43
               S 527 NOT (S9 OR S18 OR S22 OR S24)
$44
              S S34 NOT (S9 OR S18 OR S22 OR S24 OR S27)
S45
               S S36 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S34)
S46
               S S37 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S34 OR S36)
               S S38 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S34 OR S36 OR S37)
S47
S48
              S S39 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S34 OR S36 OR S37 OR S38)
S49
              S S29 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S34 OR S36 OR S37 OR S38 OR
S39)
$50
           9 S S25 NOT (S9 OR S18 OR S22 OR S24 OR S27 OR S29 OR S34 OR S36 OR S37 OR
S38 OR S39)
           8
              S S23 NOT (S9 OR S18 OR S22 OR S24 OR S25 OR S27 OR S29 OR S34 OR S36 OR
S37 OR S38 OR S39)
852
              S S21 NOT (S9 OR S18 OR S22 OR S23 OR S24 OR S25 OR S27 OR S29 OR S34 OR
           4
S36 OR S37 OR S38 OR S39)
          7 S S31 NOT (S9 OR S18 OR S21 OR S22 OR S23 OR S24 OR S25 OR S27 OR S29 OR
S34 OR S36 OR S37 OR S38 OR S39)
               S S15 NOT (S9 OR S18 OR S21 OR S22 OR S23 OR S24 OR S25 OR S27 OR S29 OR
S31 OR S34 OR S36 OR S37 OR S38 OR S39)
```

# 10/564697

## Fri, 8 May 2009, 4:16:05 PM EST

Search Query Display

		 		-
			,	

Rece	Results	
<u>#1</u>	((((magnetic field correlation)) <in>metadata)) <and> (pyr &gt;= 1950 <and> pyr &lt;= 2003)</and></and></in>	0
#2	(((mfc and (mri or (magnetic resonance) or nmr)) <in>metadata))</in>	0

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	29	("20030081818" "20070194788" "200800141 49" "20080119721" "20080124281" "2008019 7841" "20090072826" "6150815" "6332088" " 6441613" "6526306" "6674282" "6700375" "7 200430" "7457653").PN.	EPO; JPO;	ADJ	ON	2009/05/11 11:50
L2	17	("4703268"   "4720679"   "4788500"   "4837513"   "4986272"   "5168227"   "5202631"   "5214382"   "5218964"   "5245282"   "5280245"   "5296809"   "5446384"   "5459401").PN. OR ("6332088").URPN.	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/05/11 11:55
L3	108	magnetic field correlation	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/05/11 12:02
L4	263304	NMR OR MRI or (magnetic resonance)	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/05/11 12:03
L5	4	3 and 4	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/05/11 12:03
L6	8	magnetic field correlation	EPO; JPO; DERWENT	ADJ	ON	2009/05/11 12:05
L7	2	asymmetric spin echo	EPO; JPO; DERWENT	ADJ	ON	2009/05/11 12:12
L8	1	"6380739".pn.	EPO; JPO; DERWENT	ADJ	ON	2009/05/11 12:22
L9	1	"6380739".pn.	US-PGPUB; USPAT; USOCR	ADJ	ON	2009/05/11 12:22
L10	6	("6380739").URPN.	USPAT	ADJ	ON	2009/05/11 12:22
S1	2	"20060160242"	US-PGPUB; USPAT; EPO; JPO; DERWENT	ADJ	ON	2009/05/08 14:53
S2	1	2005-152110.NRAN.	DERWENT	ADJ	ON	2009/05/08 16:37

### FOR YOUR INFORMATION (LATER DATE)

6/9/4 (Item 4 from file: 2) Links

Fulltext available through: STIC Full Text Retrieval Options

INSPEC

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10022909

Title: Magnetic field correlation imaging

Author(s): Jensen, J.H.; Chandra, R.; Ramani, A.; Hanzhang Lu; Johnson, G.; Lee, S.-P.; Kaczynski, K.; Helpern,

J.A.

**Author Affiliation:** Dept. of Radiol., New York Univ., NY, USA **Journal:** Magnetic Resonance in Medicine, vol.55, no.6, pp.1350-61

Publisher: Wiley

Country of Publication: USA Publication Date: June 2006

ISSN: 0740-3194

SICI: 0740-3194(200606)55:6L.1350:MFCI;1-3

CODEN: MRMEEN

Item Identifier (DOI): 10.1002/mrm.20907

Language: English

**Document Type:** Journal Paper (JP)

Treatment: Experimental (X)

Abstract: A magnetic resonance imaging (MRI) method is presented for estimating the magnetic field correlation (MFC) associated with magnetic field inhomogeneities (MFIs) within biological tissues. The method utilizes asymmetric spin echoes and is based on a detailed theory for the effect of MFIs on nuclear magnetic resonance (NMR) signal decay. The validity of the method is supported with results from phantom experiments at 1.5 and 3 T, and human brain images obtained at 3 T are shown to demonstrate the method's feasibility. The preliminary results suggest that MFC imaging may be useful for the quantitative assessment of iron within the brain (39 refs.)

Subfile(s): A (Physics); B (Electrical & Electronic Engineering)

**Descriptors:** biological tissues; biomedical **MRI**; brain; iron; magnetic fields; neurophysiology; phantoms; spin echo (NMR)

Identifiers: magnetic field correlation imaging; magnetic resonance imaging; MRI; magnetic field inhomogeneities; biological tissues; asymmetric spin echo; nuclear magnetic resonance; NMR; phantom; human brain image; quantitative assessment; iron; 1.5 T; 3 T

Classification Codes: A8760I (Medical magnetic resonance imaging and spectroscopy); A8740 (Biomagnetism); A8770E (Patient diagnostic methods and instrumentation); A8730 (Biophysics of neurophysiological processes); B7510N (Biomedical magnetic resonance imaging and spectroscopy)

Numerical Indexing: magnetic flux density: 1.5E+00 T; magnetic flux density: 3.0E+00 T

INSPEC Update Issue: 2006-032

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### FOR YOUR INFORMATION (LATER DATE)

6/9/1 (Item 1 from file: 2) Links

Fulltext available through: STIC Full Text Retrieval Options

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#### 11449509

Title: Magnetic field correlation as a measure of iron-generated magnetic field inhomogeneities in the brain Author(s): Jensen, J.H.; Szulc, K.; Caixia Hu; Ramani, A.; Hanzhang Lu; Liang Xuan; Falangola, M.F.; Chandra, R.; Knopp, E.A.; Schenck, J.; Zimmerman, E.A.; Helpern, J.A.

Author Affiliation: Dept. of Radiol., New York Univ., New York, NY, USA; Gen. Electr. Global Res. Center,

Schenectady, NY, USA; Dept. of Neurology, Albany Med. Coll., Albany, NY, USA

Journal: Magnetic Resonance in Medicine, vol.61, no.2, pp.481-5

Publisher: John Wiley & Sons Inc. Country of Publication: USA Publication Date: Feb. 2009

ISSN: 0740-3194 CODEN: MRMEEN

Item Identifier (DOI): 10.1002/mrm.21823

Language: English

Document Type: Journal Paper (JP)

**Treatment:** Practical (P); Experimental (X)

**Abstract:** The **magnetic field correlation** (**MFC**) at an applied field level of 3 Tesla was estimated by means of **MRI** in several brain regions for 21 healthy human adults and 1 subject with accruloplasminemia. For healthy subjects, highly elevated **MFC** values compared with surrounding tissues were found within the basal ganglia. These are argued as being primarily the result of microscopic magnetic field inhomogeneities generated by nonheme brain iron. The **MFC** in the accruloplasminemia subject was significantly higher than for healthy adults in the globus pallidus, thalamus and frontal white matter, consistent with the known increased brain iron concentration associated with this disease. Magn Reson Med 61:481-485, 2009. (c) 2009 Wiley-Liss, Inc. (20 refs.)

Subfile(s): A (Physics); B (Electrical & Electronic Engineering)

Descriptors: biomedical MRI; brain; iron

Identifiers: magnetic field correlation; iron-generated magnetic field inhomogeneities; MFC; brain MRI; accruloplasminemia; basal ganglia; microscopic magnetic field inhomogeneities; nonheme brain iron; globus pallidus; thalamus; frontal white matter; brain iron concentration

Classification Codes: A8740 (Biomagnetism); A8730 (Biophysics of neurophysiological processes); A8760I (Medical magnetic resonance imaging and spectroscopy); A8770E (Patient diagnostic methods and

instrumentation); B7510N (Biomedical magnetic resonance imaging and spectroscopy)

INSPEC Update Issue: 2009-009

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